



THE URBAN DISTRICT COUNCIL
OF HOUGHTON-LE-SPRING.

ANNUAL REPORT


OF THE

Medical Officer of Health

(DR. D. S. PARK)

For the Year ending 31st December,
1908.

HOUGHTON-LE-SPRING :
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HOUGHTON-LE-SPRING,

February, 1909.

TO THE URBAN DISTRICT COUNCIL OF HOUGHTON-LE-SPRING.

MR. CHAIRMAN AND GENTLEMEN,

It is again my duty as your Medical Officer of Health to submit for your consideration and acceptance my Annual Report dealing with the health and sanitary condition of the district during the year 1908.

Appended to my report are the various tables of the Local Government Board, numbered respectively I., II., III. IV. and V.

The following particulars will considerably simplify and facilitate matters.

Table I. gives the vital statistics of the whole district during the year.

Table II. refers to sub-districts or parishes of known population, and does not apply to this district, which is a district in itself and not made up of parishes of known population. The births are simply given without reference to the parishes in which they occur.

Table III. gives the Infectious Diseases notified during the year.

Table IV. gives the causes of and ages at death during the year.

Table V. deals with the Infant mortality during the year. In order to complete this table I had to apply to the Registrar of Births for the number of illegitimate children registered during the year. For furnishing this information he is entitled to reasonable remuneration.

By referring to Table I. we shall find that 190 deaths have been registered during the year; but in estimating the mortality it is necessary to carry out the instructions of the Local Government Board. Three deaths occurred to non-residents or those persons brought into the district on account of sickness or other causes, and dying in public institutions there, and four to residents or those persons who have been taken out of the district on account of sickness or other causes, and have died in public institutions elsewhere. After making all the necessary corrections the total number of deaths upon which the mortality must be based becomes increased to 191.

Death-rate.—By estimating the population at the middle of the year, as required by the Local Government Board, at 9,725, this is equivalent to a death-rate of 19·6 per 1000 per annum, and an infant mortality of 49·7 per cent.

Births.—The births for the year number 366, representing a birth-rate of 37·6 per 1000 per annum, and a natural gain to the population of 175.

The following table gives the births, male and female, including birth-rate for the last four years.

Year	Births	Males	Females	Rate	Increase
1905	355	195	160	40·6	215
1906	318	165	153	35·5	135
1907	346	175	171	36·7	192
1908	366	192	174	37·6	175

Death-rate per 1000 registered births, 191·2.

The subjoined table gives the death-rate per 1000 from the principal Zymotic diseases during the past three years :—

No.	Diseases	1906.	1907.	1908.
1	Small-pox	0	0	0
2	Scarlet Fever	·22	0	0
3	Diphtheria and Membranous Croup	·22	·21	·20
4	Typhoid and Continued Fever	·11	0	·51
5	Measles	·55	·42	0
6	Whooping Cough	0	·106	·20
7	Diarrhoea, Dysentery and Enteritis	2·23	·53	1·54
8	Phthisis	·44	1·06	1·13
9	Acute Diseases of the Lungs	3·68	2·96	4·21
10	Other Tubercular Diseases	·44	·74	·51
Zymotic death-rate		3·35	1·27	2·46

New Cases of Sickness.—The Infectious Disease Notification Act was adopted by your Council on February 1st, 1890.

In order to give effect to the above Act I make it my invariable practice to visit and inspect the premises occupied by the patients with as little delay as possible after receiving the Notification Forms, and to give such instructions as to isolation and disinfection as the nature of the case may require. As I have remarked before, we are a mining population with a relatively high birth-rate, and our houses are chiefly of the cottage property class, so that home isolation in the vast majority of cases is a physical impossibility.

We have a well-equipped Hospital for the isolation of infectious cases occurring within the district, and with the hearty co-operation of the community at large much might be done to make the Institution more popular and useful.

The Notification Act keeps your Council acquainted with the distribution of the infectious cases, but unless isolation and disinfection are properly attended to, it becomes practically worthless in fulfilling the object for which it was passed. We have no hospital for the treatment of cases of Pulmonary Tuberculosis, nor have we as yet made Tuberculosis a notifiable disease.

Disinfectants.—These are supplied free of charge, and your Inspector himself personally superintends their use.

Portable Disinfecting Apparatus.—This is used on all possible occasions when the consent of the householder can be obtained, and in all cases removed to hospital we insist upon this form of disinfection for such contaminated articles, as the bed and bedding which cannot possibly be properly disinfected at home. The apparatus is taken to the patient's home, and the disinfection is done free of charge, and as a rule the work is carried out under the personal supervision of your Inspector. Many of the inhabitants are still under the impression that such a form of disinfection is only for persons of dirty, filthy habits and therefore not for them. The curious thing is that many of the persons who consider such a form of disinfection unnecessary in their case, on account of their clean, tidy habits, are often the very persons who stand most in need of it.

Infectious Sickness.—Eighty-eight cases in all have been notified during the year, viz. :—

Diphtheria and Membranous Croup	...	10
Erysipelas	... ..	20
Scarlet Fever	... ..	22
Typhoid Fever	... ..	36
		<hr/>
		88

as compared with sixty-two for the previous year, viz. :—

Diphtheria and Membranous Croup	...	19
Erysipelas	... ..	19
Scarlet Fever	... ..	18
Typhoid Fever	... ..	5
Puerperal Fever...	... ..	1
		<hr/>
		62

Diphtheria.—The first case was notified on January 1st, and was certified as one of Scarlet Fever with Diphtheria. We have here another example of two acute infectious diseases running a concurrent course in the same person.

The other cases occurred as follows :—

Date	Age	Residence	Sex
Feb. 8	2 years ...	3 Elizabeth Street ...	Female
„ 12	2 „ ...	78 Sunderland Street ...	„
July 3	9 „ ...	20 Quarry Row... ..	„
„ 16	28 „ ...	27 Sunderland Street ...	„
Sept. 2	7 „ ...	11 Hopper Street ...	Male
Oct. 7	4 „ ...	28 Robinson Street ...	„
„ 15	4 „ ...	5 Hopper Street ...	„
„ 23	4 „ ...	11 „	Female
Nov. 12	13½ „ ...	High Hill-side	„
„ 19	6 months	Kirklee Lane (Croup) ...	„

As will be observed, the cases were not confined to any particular part, but were distributed pretty equally over the township, with the exception of Chilton Moor, which has enjoyed a complete immunity from the disease during the year.

The cases were carefully investigated, but no apparent sanitary defects could be found to account for the infection. The houses were well kept, and the out-offices were clean and orderly. One of the patients was an operator at the National Telephone Office. The floor of the office was rather broken, as the result of dry rot. It was at once taken up and a concrete floor laid down.

As I have frequently remarked, Diphtheria may cling to circumscribed areas without leaving behind it any visible sign as to the source of infection. Some persons, too, are more susceptible to the disease than others. In this as in other infectious sickness indiscriminate visiting at infected houses is a great cause of the spread of the disease in this district. Some mothers will persist in such visiting—often with babies in their arms—after having been cautioned as to the serious consequences likely to follow such a practice. Curiosity, more than a desire to help, frequently leads to this regrettable and reprehensible habit. The use of the Antitoxin Serum in the early treatment of Diphtheria is undoubtedly of inestimable benefit, and I am still of opinion that it should be provided to the Medical Attendant for the use of poor persons free of charge. If this were done a real benefit would be conferred upon a class of persons who are unable to procure it for themselves, and who unfortunately are usually the greatest sufferers from the disease.

Scarlet Fever.—As a rule indiscriminate visiting at infected houses, and a disregard of the ordinary precautions, are the main features in the propagation and spread of the disease.

With respect to the four cases which occurred in the Workhouse, I may mention that the children absented themselves from the Workhouse without leave for a whole day, and that while outside they visited at several houses and it was supposed the infection had been contracted in that way, as they all developed the disease on the same day, and no case of the kind had occurred in the Workhouse for over a year.

One of the cases was evidently imported from Washington, as the child had only been two days in the town before she developed the disease.

Typhoid Fever.—You will remember, Gentlemen, that we suffered from a rather serious outbreak of Typhoid Fever during the latter part of the year. It began about the 22nd of August, and continued more or less until the end of November. From my investigations I am of opinion that while the eating of polluted mussels started the outbreak, the subsequent cases were due to the faecal matter having been put into the ashpits and privies in an infective form, and that the intense heat which prevailed from September 29th to October 9th intensified the outbreak by hastening the growth and multiplication of the Typhoid Bacillus in the said out-offices.

In accordance with my instructions as Medical Officer of Health I communicated with the Local Government Board and the County Council on the 28th of October, as follows :—

HOUGHTON-LE-SPRING,
Co. DURHAM,
October 28th, 1908.

MY LORDS AND GENTLEMEN,

I regret that it is my duty to inform Your Lordships that we are threatened with an outbreak of Typhoid Fever both in the Northern Rural and Urban Districts of Houghton-le-Spring. I am not in a position to give the cause or causes of the outbreak, as nothing of a definite nature has resulted from my personal investigation. There are certain facts, however, I am keeping in mind, and all possible precautions are taken to arrest the spread of the disease and bring the outbreak to an end.

I have the honour to be,
My Lords and Gentlemen,
Your obedient Servant,

The Local Government Board, *(Signed)* D. S. PARK.
Whitehall, London, s.w.

A copy of this letter was sent to Dr. Hill, Medical Officer for the County of Durham.

On November 3rd I received the following reply from the Local Government Board.

LOCAL GOVERNMENT BOARD,
WHITEHALL, S.W.,
2nd November, 1908.

Sir,

I am directed by the Local Government Board to advert to your letter of the 28th ultimo reporting an outbreak of Typhoid Fever in the Northern Division of Houghton-le-Spring Rural District and in the Urban District of Houghton-le-Spring, and I am to request that the Board may be furnished with a detailed report on this outbreak at your earliest convenience. The report should contain such information as can be given with regard to the number of non-fatal as well as of fatal cases, and to the circumstances in which they have occurred, with reference particularly to the purity of the water used for drinking, to the drainage, and to the method of disposal of excrement in the localities where the disease has been prevalent. It should also state the measures taken for checking the spread of the disease.

I am, Sir,
Your obedient Servant,

D. S. PARK, ESQ.,
Medical Officer of Health.

JOHN LITHIBY,
Assistant Secretary.

On November 7th I wrote to the Local Government Board as follows, a copy of which I also sent to the County Medical Officer.

HOUGHTON-LE-SPRING,
November 7th, 1908.

To the Local Government Board,
Whitehall, London.

MY LORDS AND GENTLEMEN,

In accordance with your request for a detailed report on the outbreak of Typhoid Fever in the Northern Rural District and the Urban District of Houghton-le-Spring, as reported by me to your Lordships on the 28th ult., I beg to state as follows:—

The first case occurred on February 20th last at Fatherly Terrace, Colliery Row, and the second on April, at Quarry Row, Houghton-le-Spring, as will be observed by referring to the list of cases, giving ages, sex, residence and marginal notes which I have appended to my report. As these cases are in no way responsible for the present outbreak, that may be passed over without further comment.

Dealing first with the Urban District, there are a few general facts which I may here refer to.

First, with respect to the purity of the water, I append a copy of the analysis received from the analyst a few days ago, in which he describes the water as quite satisfactory. For some time back our water supply has been very intermittent owing to causes given by the Inspector in his report dealing with the question. On one occasion the town was practically without water for twenty-four hours. In order to secure water during those temporary interruptions the people were obliged to get water from whatever source available, with the result that three private runners were more or less utilized for that purpose. At my suggestion the water from these runners was analysed, and as one of the samples was found to be grossly polluted the runner was at once closed.

The Council were quite alive to the objection and possible danger of an intermittent water supply, and some months ago decided to get a supplementary supply from the Sunderland and South Shields Water Company, from their pumping station at Stony Gate, some $1\frac{1}{4}$ miles from Houghton-le-Spring. This water is the same water as is used by the people of Sunderland.

The negotiations with the Company were successful, and after all arrangements had been made the work was pushed on with all possible speed so that the water was actually in use in the town on the 24th of last month. The whole district was supplied with the same water before the outbreak began. This is an important fact, and taken in conjunction with the further fact that large portions of the town—more than half—were free from any cases of the disease, as will be seen from an examination of the plan of the town, showing the distribution of the cases, which the Inspector has so kindly prepared for the purpose of my report, I think I am justified in assuming that our water is in no way responsible for the outbreak. Indirectly, no doubt, the scarcity of water from time to time would have an injurious effect upon our drains and sewers, especially during the abnormally hot, dry weather which prevailed from September 29th

to October 10th. During this period we suffered much from dense fogs rising from the earth at night and during the early morning. The food stuffs, too, in the small pantries were affected, and it was impossible to protect anything from the plague of flies by which we were besieged.

On Bank Holiday, August 3rd, there was a Horse Parade and Show held in the town, and it was estimated that over fourteen thousand extra persons were in the town during the day.

From the 2nd to the 9th of October the "Houghton Feast" was on, when some forty or fifty thousand people from all parts of the district, including the usual element of show people who perambulate the country in their vans, visited the town. In some of the shows hundreds of people of all classes were packed so close that they could hardly find standing room.

The excrement is carefully disinfected and buried in the earth or burned. This is the strict order given by me on my rounds of inspection, and considering the amount of disinfectants with which each family is provided free of charge, this should be thoroughly well done. All persons are cautioned against putting such matter down the drains or into the ashpits or privies. It has been agreed to introduce the pail system in such cases, and several pails have been ordered and will be put into use when occasion require.

Scavenging.—This is let by contract and the refuse is carted direct on to the land on the outskirts of the town. It cannot be said that the scavenging has been satisfactory in all cases. As a matter of fact one of the contractors has given so much trouble that no tender from him will be accepted in the future.

Drains and Sewers.—These are systematically examined, flushed and disinfected, as a reference to the Inspector's report will show. As will be observed, with the exception of one each in Outram Street and Mildred Street, the cases have all occurred on the north west side of Sunderland Street. The south-east side, including the Market Place and the New Town, together with Chilton Moor and Colliery Row on the south-west side, have so far been quite free from the disease. This, as I have said, includes more than half the town.

In the affected area it is interesting to note that the Sewage is conveyed by Sewers running in four different directions. I am informed by the Inspector that each section has been examined from time to time and carefully flushed and disinfected.

Ventilation.—Our system of ventilation is of the surface character, viz., by means of open manholes and lamphole covers.

Dairies and Cowsheds.—These have been personally inspected by me, and so far as I could make out everything was in order. The cattle appeared to be well and healthy, and the buildings and utensils appeared to be clean and well kept.

Milk.—The sick persons seemed to be getting their milk from the different dairies in the town, and there was no evidence whatever to indicate that the milk had anything to do with the outbreak. In two cases condensed milk was the only milk used.

Six of the patients were removed to the hospital, two of whom died. They had been eating mussels and were in a very precarious condition when admitted. After eating the mussels they were seized with vomiting and diarrhœa, and in due course developed the disease.

It is of importance to note that the first three persons affected had all been eating mussels at the Horse Parade, and that the man in Union Street (notified on October 24th) had been eating mussels at "Houghton Feast." These cases were removed to the hospital, which had the effect of preventing any further spread in the streets from which they were removed.

The cases not removed to hospital but left at home acted as fresh centres of infection, with the result that other persons living close by caught the infection. Taking all things into consideration (and we have before us a combination of conditions which might account for almost anything), I am of opinion that, while the eating of polluted mussels in all human probability started the outbreak, the spread was caused by the excreta being put into the ashpits and privies before the disease was recognized or suspected, with the result that when they came to be cleaned the dust thus occasioned held in suspension particles of infected matter which ultimately affected the neighbours and other persons living in close proximity to the sick. I am justified in this opinion by the fact that subsequent cases as a rule occurred close to cases of a prior date. No doubt indiscriminate visiting at infected houses, which is so common in the district, and so difficult to put down, played a part in the spread of the disease as well. Let me here give only one illustration of my meaning. On my rounds of inspection I found a child ill in bed in the front room, suffering from fever, and in the kitchen there were over a dozen persons regaling themselves with a ham tea, after having returned from attending a funeral of a member of the same family who had died from consumption.

Of the twenty-one cases which occurred in connection with the present outbreak three terminated fatally.

I am over the district daily, and a careful supervision is exercised over the drains and sewers and the out-offices and the district generally.

No fresh cases have been notified since November 2nd, as a perusal of the list will show. I think therefore we may reasonably expect that the maximum has been reached and passed, and that soon the outbreak will be at an end.

I have the honour to be,

My Lords and Gentlemen,

Your obedient Servant,

D. S. PARK.

Recent investigations have shown that even after a long number of years, and when apparently they are in good health, the excreta of certain persons who have suffered from Typhoid fever many years

before, contained large numbers of the Typhoid Bacillus, and thus unwittingly they became the carriers of the disease to others. This may partly account for the apparent susceptibility of certain families to the disease, but it does not offer a full explanation, inasmuch as it has been noticed that over and over again the members of certain families have contracted the disease at different times and under totally different conditions, and when living widely apart from each other. In our own district I have often been struck by the frequency with which cases have occurred in the same houses and neighbourhood without any apparent cause, the most careful investigations failing to reveal any apparent sanitary defects or conditions likely to account for the infection. In investigating the outbreak in question a marked feature of interest was this peculiarity, the frequency with which cases occurred close to cases of a prior date, when everything relating to the sanitary appliances of the house appeared to be in order. I cannot, therefore, resist the conclusion that such cases were the result of specifically contaminated faecal matter getting into the air and thus into food stuffs during the scavenging of the out-offices, and thus affecting those in the immediate neighbourhood. The cases that were notified subsequent to my report to the Local Government Board and the County Council were chiefly secondary. As I have remarked, with the exception of the solitary case which occurred at Fatherly Terrace in the month of February, Colliery Row has been free from the disease during the year.

In this district, with the exception of North and South View, where, by the way, the out-offices are of the ash closet type, nearly all the out-offices are a considerable distance from the houses. From my point of view this is a matter of some importance. Such outbreaks I fear, Gentlemen, are certain to occur from time to time, under favourable conditions, so long as we continue our present privy-ash-pit system. The old privy-pits are most objectionable, and are a source of danger to the public health. As a rule they are close to the houses, and in the hot summer months they become most offensive, causing the families serious inconvenience. They should be replaced by the modern ash-closets, if not by the water carriage system. I am indebted to your Inspector for the following list of ashpits, &c., in the district at the present time.

Ash-closets	...	...	...	...	221
Water-closets	...	...	...	...	338
Ashpits and Privies	...	...	...	...	1262
Ashpits alone	...	...	...	...	125
Ashbins	...	...	...	...	68

Appended to my report is a table giving a description of the ashpits, &c., at houses where the Typhoid cases have occurred.

It is a significant fact that not a single case occurred in houses provided with water-closets, and only two in houses with ash-closets.

Whooping Cough—Whooping Cough was rather prevalent in the district during the first quarter of the year, and was accompanied more or less with chest complications owing to the cold, trying weather.

Cholera.—We have again enjoyed a complete immunity from Cholera during the year.

Erysipelas.—One of the cases was due to accident. My investigations revealed nothing of an insanitary character. It is a little singular that in the month of May the only infectious cases notified were five cases of Erysipelas.

Chicken Pox.—Only a very few cases of Chicken Pox have come under my observation. They were all of the ordinary type, and in no instance was the diagnosis ever in question.

Measles.—During the first quarter of the year Measles was somewhat prevalent in the district, but never to such an extent as to suggest the advisability of closing the schools.

Summer Diarrhœa.—Diarrhœa was rather prevalent from August to October, especially during the exceptionally hot and oppressive weather which prevailed from September 29th to October 9th, when everything in the form of food stuffs became practically putrid in the course of a very few hours, and when the house flies were so troublesome as to become a perfect pest. As was to be expected the out-offices were very offensive as the householders as yet, with few exceptions, show no inclination to adopt my recommendation to put dry ashes under the seats each time the receptacles are used. Had this simple expedient been employed I feel sure much of the unpleasantness would have been avoided and the sickness from Diarrhœa considerably reduced.

Pneumonia and Chest Affections.—As I have frequently remarked, Gentlemen, our mortality from chest affections is above the average. This is difficult to account for, as our houses, as a rule, are dry and substantially built and are provided with through ventilation and a complete system of drainage. We suffer much from a prevalence of north-east winds during the winter and early spring, and these, no doubt, combined with the habit of taking infants and young children out-of-doors in all kinds of weather, and at all hours, scantily and improperly clothed too often, which is a common habit of many of the mothers of the district, cannot fail to have an injurious effect upon the young and old, and persons of debilitated constitution generally. As a mining population the sudden change of temperature to which the workmen are exposed while going to and returning from their work—the work is done in shifts—must be looked upon as a predisposing cause as well.

Hospital Accommodation.—The Con-joint Small-pox Hospital is now finished and is ready for the reception of patients. Our Infectious Hospital is built of stone, and consists of four wards with accommodation for eleven beds. Owing to the outbreak of Typhoid Fever it has been more in request during the year than formerly. Sixteen cases in all have been under treatment during the year, viz. :—

- 2 Scarlet Fever,
- 1 Diphtheria,
- 13 Typhoid Fever, two of which terminated fatally.

Influenza.—During icy cold winds, irrespective altogether of the time of year, we are sure to have an outbreak of Influenza. Fortunately the type of the disease is yearly becoming milder and the complications less severe.

Ring-worm.—Very few cases of Ring-worm have come under my observations during the past year.

Milk.—Samples of milk are taken from time to time for analysis by the County Council. I am not aware of any convictions having been obtained for adulteration. Our milk as a rule may be said to be of good quality and ample for the requirements of the district.

Meat.—Our meat is usually home-fed and of good quality and flavour. The butchers are always ready and willing to afford your Inspector and Medical Officer every assistance on their rounds of inspection.

The offal is at once removed to a suitable place some distance from the premises directly the slaughtering is over, so that the premises, as a rule, are always clean and well kept. Only in one instance, that of a pork butcher, has any complaint been received as to nuisance arising from dirty or untidy premises.

We had a demonstration in the “Humane” System of Slaughtering. Almost all the butchers of the district were present and were well satisfied with the simplicity and painless character of the method. Two animals were operated on, and everything passed off most satisfactorily, the huge beasts dropping down dead instantaneously. Two of the butchers adopted the method there and then, and they speak most highly of its advantages over the old, uncertain and cruel method, and strongly recommend its adoption by others.

Gentlemen, slaughtering in the shops is still permitted. I beg again to appeal to your Council against this revolting practice. It has a great attraction for the young and thoughtless, and cannot fail to have a degrading and demoralizing effect.

Food and Drugs Act.—Proceedings under this Act are taken by the County Council.

Dairies and Cowsheds.—These are periodically and systematically inspected by your Inspector, and as a rule the premises are clean and well kept, and there has been no attempt on the part of the cow-keepers to keep more cows than the provisions of the bye-laws permit. The lighting, ventilation and drainage are satisfactory, and the byres are lime-washed four times a year, at regular intervals, and due attention is paid to all matters relating to cleanliness. They are all registered under the Dairies, Cow-sheds, and Milk-shops Order, 1884. The cows are generally of a superior class and are well looked after. No cases of infectious sickness have been reported during the year.

Lodging-houses.—We have now three lodging-houses in the district, the two old ones situate in the High Hill-side and Grey Horse Lane respectively, and the one which was in course of erection last year, situate in Gas House Lane, and named the “Lambton Boarding

House.” This is a substantial and commodious building with proper accommodation for some seventy lodgers. It is heated with stoves, and is provided with a system of baths. Altogether, the building is a credit to the owners, and supplies a want which has long been felt in the district. The management, however, is not all that could be desired. The owners claim that the house is a “Boarding House,” and not a “Common Lodging-house,” and therefore does not require to be registered and placed under the supervision of your Council. In my judgment it is a “Common Lodging-house,” and should be registered at once. In addition to labourers and others who may live there for a few days or a few weeks together, the majority of the lodgers are of the itinerant class who may seek shelter for the night only or for a day or two at the most. All have to provide and cook their own food.

Sewers.—The sewers are inspected from time to time, and in the hot summer months and after periods of protracted drought they are freely flushed and disinfected. During the prevalence of the Typhoid outbreak special attention was given to the flushing and disinfection of the drains and sewers and the emptying and disinfection of the ash-pits and privies. Obstructions of a temporary character were removed from the sewers in Robinson Street and Back Station Road.

The general system of sewers is still affected by the subsidence of the land, and to such an extent that the sewage is ponded up to such a degree as to render it exceedingly difficult for the out-fall sewers from the Villa Estate, portions of Chilton Moor and the main out-fall sewer near the Tile-sheds to work in anything like a satisfactory manner. The relaying of these sewers will ultimately become necessary, but it would be well to delay the work until such time as the land is quite settled.

Spouting.—The spouting of the district is fairly satisfactory, but many of the down-comers discharge on to the footpaths in place of into properly-constructed channels, causing damage to the footpaths and roads, and should be stopped.

Streets.—Under the Private Street Works Act, 1892, the requisite notices were served on the owners of property in Ironside Street, and as no objection was made the Council advertised for tenders for the making-up of the street. The work has been satisfactorily completed and includes new crossings, surface-water drains, kerbing and channelling, flagging of footpaths, metalling and the making-up of the carriage way. The street is now in good order, and the dangerous steps formerly existing here have been removed and the footpath laid at an even and safe gradient. Many of our private streets, those not yet taken over by the Council, notably Balfour and Back Balfour Street, Stanley Street, Back Sunderland Street to Ironside Street and a portion of Outram Street and Back Edwin Street, all referred to in my last year’s report, are still in a very unsatisfactory condition, especially in wet weather, when they become almost impassable, and should be made up at the earliest convenience.

Scavenging and Removal of House Refuse.—The Council had under their serious consideration the question of undertaking this work by direct labour, and a large amount of information as to comparative cost in the district was collected by your Surveyor, but owing to the initial cost for plant, and the difficulty in obtaining satisfactory deposits and tips it was considered advisable to abandon the idea for the present and to let the work by contract as formerly.

The contracts are now let for three years instead of for one only as formerly. It was hoped that by extending the time one of the contractors might be induced to contract for the whole district and thus devote all his time to the work. Hitherto the scavenging of the district by the various scavengers has formed only a small part of their daily work, so that when otherwise busy the work has often been allowed to stand over, causing much trouble and annoyance to your Council. It is to be regretted that the Council's anticipations have not been realized in this connection.

Considerable difficulty has been experienced during the year with some of the contractors, and it has been found necessary on more than one occasion to withhold payment until the work has been satisfactorily carried out. The only way to deal with such offenders is to keep them under the closest supervision, and to enforce at once the provisions of the contract when the work is improperly performed. For many years back complaints have been made by the tenants living in Union Street against the practice of carrying the contents of the ashpits and privies through their houses. These houses are not provided with a back street or secondary means of access. A conference was arranged by the Council between the owners and the adjoining land owner with a view of terminating this unseemly state of things, with the result that a satisfactory agreement was arrived at, so that in future the out-offices will be approached by carts through the field at the back.

Houghton Feast.—The attendance was as large as ever, and the behaviour of the crowd was all that could be desired. All kinds of persons are brought together on this occasion, including, of course, the usual element of show people, who perambulate the country in their vans. The Surveyor served the usual notices upon the show people, requesting them to collect into convenient form all refuse matter for removal by the Council's carts which were in attendance each morning until eight o'clock. The removal of slop water and refuse of every kind in such manner kept the place free from all nuisance, and so satisfactory were the arrangements that not a single complaint was made to your Inspector.

Highways and Footpaths.—Large quantities of slag and whinstone have been laid down and steam rolled at Chilton Moor, Colliery Row, Fence Houses Road, Newbottle Street, Sunderland Street, and Durham Main Road, and considerable repairs have been made to the footpaths throughout the district generally. Footpaths through the fields, &c., have also received attention, and the Houghton Burn footpath has been supported and made good where necessary.

By the advent of the Electric Light and Power Companies and Tramway System, including the various extensions made by the Gas

Company and the laying down of new sewers, &c., many of our roads and footpaths throughout the district have been broken into from time to time, thus causing considerable expense to the Council.

The Council have rightly undertaken the cleaning of the footpaths where long lengths of blank frontage exist, and it would add much to the comfort of the public generally if the occupiers would show a little more interest in such matters by giving daily attention to the footpaths in front of their own houses. The streets in the centre of the town are watered daily during the hot weather, and an agreement has been made with the Tramway Company for the watering of the track by the special tank car constructed for the purpose at a cost much below that entailed by team labour. It might be well for the Council to again consider the question of a dust binder to be applied in our main streets during the coming summer.

Sewage Disposal Works.—The subsidence of the land to which this district is much subjected caused filters ‘one’ and ‘two’ to be affected to such an extent that it became necessary to open out and relay a portion of the under drainage. Considerable delay in getting filters ‘three’ and ‘four’ into communication was experienced by reason of the negligence of the carting contractor. The unsatisfactory delivery of ashes was so serious that the Council was compelled to determine the contract and to complete the work by daily hire of team labour. The new filters have been working as required for several months past, and continue to give satisfactory effluents. It was intended to use more land for cropping purposes, but great difficulty is experienced in disposing of the crops at satisfactory prices. Many of the land beds are found to be working more or less unsatisfactorily, and steps are being taken to improve the matter by the introduction and laying of more efficient under-drains. All sewage non-delivered at the farm passes through the main tanks from two o’clock in the morning until six o’clock at night, and is treated upon the land. The more or less diluted night flow is passed through the small tanks and treated by filters.

You are much indebted, Gentlemen, to your able Chairman for the improvement effected by the new tanks and filters which have recently been put down, and which so far yield satisfactory results. His frequent visits to the Sewage Farm, and the keen personal interest he has all along taken in the purification of our sewage have proved of immense value to your Council.

Public Lighting.—The inconvenience experienced during the latter part of last year by insufficient pressure of gas caused by damage at the gas works, was complained of until well into the present year. Many improvements have been made at the works and considerable extension of mains has been undertaken, so that the town is now much better equipped as regards pressure and quality of gas than for some years back. The question of the adoption of Electric Lighting in the main streets was considered by your Council, but the cost of conversion of the street lamps was so great that the question was deferred for the present. New lamps have been erected at Abbott Street, Bink’s Yard, Anderson’s Square, Wallace Street, and in Front and Back Bernard Street. The practice of lighting alternate lamps in the main streets

during the summer months has been continued, and appears to be much appreciated by the public.

Public Conveniences.—The Council have acquired a portion of the land adjoining its offices and depot, and have decided to erect underground conveniences thereon. The necessary plans and specifications have been prepared by your Surveyor, and have been approved by the Council. Provision is made for two w.c.s provided with penny in the slot locks, and for seven urinal stalls; the whole of the internal walls to be of white glazed brickwork.

Development of the District.—Building operations have been fairly brisk during the year. Sixty-three plans have been approved, including proposed works as follows :—

Dwelling houses	...	...	...	...	...	50
Houses and Shops	...	...	...	...	...	6
Other premises	...	...	...	...	...	2
Alterations and rebuilding of existing premises	...					5
						<hr/>
Total	...	...	...	...	...	63

The Villa Estate and the Ironside Estate are being rapidly covered and filled in by building operations. The general improvement of the district has been so marked as to form the subject of the following comments by one of the local papers :—

“Those whose business takes them to Houghton-le-Spring cannot fail to notice the great improvement which is going on in Newbottle Street. With its Church, Rectory, Grammar School, the Hall, and one or two old-fashioned houses, there is much of interest in Houghton, but of recent years it has certainly grown more business-like. Perhaps the advent of the electric cars has had something to do with it; anyhow, the cars brought about the re-construction of an old inn at the bottom of Newbottle Street. A very large grocery store and the Urban Council Offices have been a further set off, and now there are several large new shops, one complete, and the others in various stages of construction, and all of the most up-to-date type. Though for years there has been a continuous range of buildings on the right side, the land opposite was never built upon to any extent until quite recently. Further up is a fine new block of school buildings just opened by the County Council. The new side bids fair to be rapidly filled in, and will form quite a feature of the town.”

The above refers to what is known as the Wheler estate, which has been laid out during the year and provides for three new streets, to be known as Wheler Street, Grey Street, and Bruce's Terrace respectively, together with the necessary back streets. New sewers required for the estate have been provided. Building operations are very lively, and the water main extensions will be proceeded with at an early date.

Factories and Workshops Act, 1901.—The factories and workshops in the district have been inspected by me in the usual way, both alone and in conjunction with your Inspector. Everything was found to be in order with the exception of a w.c. which was not in a proper place, and the want of a separate convenience for females. The owner has promised to have the necessary alterations and additional con-

venience attended to at once. The air space, ventilation, and drainage were all in accordance with the requirements of the Act.

Statement of Certifying Surgeon of duties performed under Section 8 of the Workmen's Compensation Act during the year 1908.

Number of certificates given in pursuance of Section 8:—

- 3 Nystagmus.
- 9 Beat hand (miner's).
- 1 Beat knee.
- 2 Inflammation of synovial lining of wrist.
- 1 Inflamed pectoral muscle.

16

Persons examined for certificates of fitness for employment in factories and workshops:—

	Males.	Females.	Total.
Between 13 years and 14 years...	2	0	2
Between 14 ,, ,, 16 ,, ,,	16	28	44
	—	—	—
	18	28	46

Wood Houses, Colliery Row.—These consist of two rows of very poor houses, which are in constant need of repair. Your Council were taking steps to have them replaced by a more modern and up-to-date class of house. I understand the Lambton Colliery Owners are negotiating with the present owners, with a view to purchasing the property and having the houses rebuilt. It is to be hoped the negotiations will be successful, as the houses are in a very unsatisfactory condition.

Lambton Collieries.—As you know, Gentlemen, the colliery owners are the great employers of labour in the district, and are extensive property owners. They keep a large permanent staff of workmen for the purpose of keeping their property in repair, and as a rule it is well looked after. There has been a systematic re-arrangement of the families on the colliery with a view of giving the larger houses to the biggest families. I am again indebted to Councillor Palliser for his detailed report of the work carried out during the year. I am, however, unable to give it in detail as space will not permit, but it is work of a varied and substantial character, and reflects great credit upon the company who are always ready and willing to comply with the requirements and recommendations of your officers.

Infant Mortality.—Our infant mortality, in common with other districts, is still high; this is due in a large measure to ignorance and carelessness on the part of many of the parents. As I have frequently had occasion to remark, it is no uncommon thing to see mothers out of doors with infants in their arms, scantily and improperly clothed very often, at hours and under conditions that could not fail to be attended with serious consequences. They appear to have no knowledge as to the proper feeding, clothing, and general management of their infants and young children, and they seem to evince no desire to learn from those who would willingly help them.

Population.—Sixty new houses have been built and occupied during the year, making in all 1,945 houses in the district at the pre-

sent time, which, if multiplied by five, gives a population of 9,725, which I think is a fair population upon which to base our mortality.

Water Supply.—From the 24th Oct. when the Stony Gate water was turned on, our water supply has been perfectly satisfactory in every way.

I have again to thank Dr. Hill, County Medical Officer, for so kindly furnishing me with a copy of the Vital Statistics of the Administrative County of Durham, a perusal of which along with our own Vital Statistics will enable you at once to compare our Vital Statistics with the average for the county. The death rate per 1,000 registered births is much higher than the average for the County; as a consequence our death rate is slightly above the average; as is also the death rate from chest affections. With these exceptions our rates compare favourably with the County; and our birth rate is higher. Remembering the epidemic of typhoid fever from which we suffered, and that we are a mining population with a relatively high birth rate, I think we may consider our death rate satisfactory. The five deaths due to accidents added of course to the death rate, without in any way reflecting upon the sanitary condition of the district.

My report has been prepared under very adverse circumstances, as lately I have been far from well, and have been obliged to hurry matters somewhat.

You will find much in my report, Gentlemen, with which you are already familiar; this is unavoidable, as much of the text must be repeated from year to year. In my monthly and quarterly reports you are kept informed as to the sanitary condition and requirements of the district and the means taken to protect and safeguard the public health, and all matters of importance are duly submitted for your consideration. With such matters I must keep the Local Government Board and County Council duly informed as well, and as such information can only reach them through the medium of my Annual Report, it is impossible for me in the discharge of my duties as your Medical Officer of Health to avoid going into matters which have already been brought before you during the year. I must again thank you, Gentlemen, for your ever ready and willing co-operation in all matters submitted for your consideration. My suggestions and recommendations are always well received. As a Sanitary Authority you evince the keenest interest in everything that has for its object the improvement of the district and the safe-guarding of the public health. In conclusion, permit me to offer you my grateful thanks for the confidence you continue to repose in me, and for the unvarying kindness and consideration which I have received from every member of your Council during the thirty years I have had the honour to serve you as your Medical Officer of Health.

I am indebted to your Surveyor for much valuable assistance during the year, and I beg to take this opportunity of offering him my thanks.

I have the honour to be,

MR. CHAIRMAN AND GENTLEMEN,

Your obedient Servant,

D. S. PARK.

LAMBTON COKE WORKS,

November 3, 1908.

I have analyzed the following samples of Water received from the Houghton-le-Spring Urban Council, per Dr. D. S. Park, on the 2nd inst., and find as follows:—

					Reservoir	From Main in centre of town
					No. 1	No. 2.
					parts per 100,000.	
Total Solid Matter	...	...	...	...	88·0	88·0
Chlorine	...	...	...	...	4·5	4·4
Free and Saline Ammonia	...	...	...	...	0·003	0·002
Albumenoid Ammonia	...	...	...	...	0·003	0·002
Nitrogen as Nitrates	...	...	...	...	0·048	0·032
Oxygen absorbed in 15 minutes	...	...	...	...	0·017	0·015
Oxygen absorbed in 4 hours	...	...	...	...	0·030	0·016
Poisonous Metals	...	...	...	...	none	none
Appearances	...	...	...	...	clear	clear
Microscopic examination	...	...	...	...	satisfactory in each case	

These samples are very different from those tested the other day; they show no evidence of pollution and may be passed as quite satisfactory.

G. LISHMAN, D.Sc., ETC.

TABLE I. Vital Statistics of Whole District during 1908 and Previous Years.

Year	Population estimated to Middle of each Year.	Births		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		Number	Rate	Under 1 Year of Age		At all Ages.					Number	Rate
				Number.	Rate per 1000 Births registered	Number.	Rate					
1	2	3	4	5	6	7	8	9	10	11	12	13
1898	7,202	289	40.1	62	214.5	151	19.3	17	12	3	142	20.02
1899	7,500	297	39.0	52	175	166	21.6	16	5	—	161	21.4
1900	7,700	314	40.7	45	143.3	141	18.3	19	12	7	136	17.6
1901	7,854	339	42.7	50	147.4	147	18.7	16	9	2	140	17.8
1902	7,894	335	42.1	45	134.3	158	19.7	16	13	2	147	18.4
1903	8,056	337	41.8	68	201.7	194	24.3	21	10	4	188	23.3
1904	8,574	342	39.6	63	184.2	206	24.02	9	6	6	206	24.02
1905	8,726	355	40.6	51	143.6	144	16.5	9	6	2	140	16.04
1906	8,950	318	35.5	55	172.9	189	21.17	21	10	4	183	20.44
1907	9,425	346	36.7	51	147.3	163	17.29	20	15	6	154	16.33
Averages for years 1898-1907	8,188	327.2	39.96	54.2	165.6	165.9	20.26	16.4	9.8	3.6	159.7	19.5
1908	9,725	366	37.6	70	191.2	190	19.53	14	3	4	191	19.6

Area of District in acres (exclusive of area covered by water), 1,551 acres.

Total population at all ages 7858 } at Census of 1901.
Number of inhabited houses 1833
Average number of persons per house 4

Institution within the District receiving sick and infirm persons from outside the District : Union Workhouse.

Institutions outside the District receiving sick and infirm persons from the District: Sunderland Infirmary, Durham Co. Lunatic Asylum.

Other Institutions, the deaths in which have been distributed among the several localities in the District :
Urban Infectious Diseases Hospital.

TABLE III.

Cases of Infectious Disease notified during the Year 1908.

Notifiable Disease.	Cases notified in whole District.										Total Cases notified in each Locality.		No. of Cases removed to Hospital from each Locality.		Total Cases removed to Hospital
	At all Ages.	At Ages—Years						Houghton	Workhouse	Houghton	Workhouse				
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards								
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria, including Membranous Croup	10	1	4	4	...	1	...	10	...	1	...	1	...		
Erysipelas	20	1	1	3	2	8	5	17	3	...	...	...	...
Scarlet Fever	22	...	7	12	1	2	...	18	4	2	...	...	2
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	36	...	2	7	3	24	...	35	1	12	1	13	...		
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals...	88	2	14	26	6	35	5	80	8	15	1	16	...		

Isolation Hospital: Houghton Urban Isolation Hospital.

Total available Beds, 11. Number of Diseases that can be concurrently treated, 4.

TABLE IV.

Causes of, and Ages at, Death during Year 1908.

Causes of Death.	Deaths at the subjoined Ages of 'Residents' whether occurring in or beyond the District							Deaths at all ages of 'Residents' belonging to Localities whether occurring in or beyond the District					Total Deaths whether of Residents or 'Non-Residents' in Public Institutions in the District
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up-wards	Houghton	Workhouse	Hospital	Sunderland Infirmary	Asylum	
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough	2	2	...	...	...	...	...	2	...	...	...	...	...
Diphtheria and membranous croup	2	...	...	2	...	...	...	2	...	...	...	...	...
Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever—													
Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric... ..	5	...	...	...	1	4	...	3	...	2	...	...	2
Other continued	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic influenza	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa ...	6	5	1	...	...	...	...	5	1	...	...	...	1
Enteritis ..	9	7	2	...	...	...	...	9	...	...	...	...	...
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ...	11	...	1	...	1	9	...	10	1	...	...	...	1
Pulmonary tuberculosis													
Other tubercular diseases...	5	...	3	1	...	1	...	5	...	...	...	...	...
Cancer, malignant disease ...	5	...	...	...	...	2	3	5	...	...	...	...	...
Bronchitis ...	15	1	3	...	...	4	7	10	5	...	...	...	5
Pneumonia ...	26	8	7	2	...	6	3	25	...	...	...	1	...
Pleurisy ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other diseases of Respiratory organs	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism—													
Cirrhosis of liver	...	...	...	...	...	...	...	...	...	...	...	...	1
Venereal diseases...	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature birth ...	8	8	...	...	...	...	...	8	...	...	...	...	...
Diseases and accidents of parturition	4	1	...	...	...	3	2	4	...	...	...	...	...
Heart diseases ...	11	...	...	...	...	3	8	11	...	...	...	...	2
Accidents ...	5	...	...	1	2	2	...	4	...	...	1	...	...
Suicides ...	1	...	...	...	...	...	1	1	...	...	...	...	...
Senile decay ...	7	...	...	...	...	...	7	6	1	...	...	...	1
Marasmus, &c. ...	18	16	2	...	...	...	...	18	...	...	...	...	...
Convulsions ...	18	16	2	...	...	...	...	18	...	...	...	...	...
All other causes ...	33	6	4	...	1	15	7	30	1	...	2	...	1
All causes ...	191	70	25	6	5	48	27	176	9	2	3	1	14

49 36

TABLE V.

Infant Mortality during the Year 1908.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH	CAUSE OF DEATH												Total Deaths under One Year				
	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months		8-9 Months	9-10 Months	10-11 Months	11-12 Months
ALL CAUSES—																	
Certified	15	3	2	1	21	7	7	5	4	6	3	2	4	5	2	4	70
Uncertified ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
COMMON INFECTIOUS DISEASES—																	
Small-pox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DIARRHEAL DISEASES—																	
Diarrhoea, all forms ...	...	...	...	...	...	2	1	2	...	...	...	1	...	...	1	...	5
Enteritis, Muco-enteritis, Gastro-enteritis...	...	...	...	...	...	...	...	1	...	1	3	...	...	...	...	1	7
Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WASTING DISEASES—																	
Premature Birth	4	3	...	...	7	1	...	...	...	...	...	...	...	...	...	...	8
Congenital Defects ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Want of Breast-milk .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus	6	...	...	1	7	3	...	...	2	2	...	1	1	...	...	...	16
TUBERCULOUS DISEASES—																	
Tuberculous Meningitis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Peritonitis: Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
OTHER CAUSES—																	
Erysipelas .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ...	1	...	2	...	3	1	5	2	...	3	...	...	1	1	...	...	16
Bronchitis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Laryngitis .....	...	...	...	...	...	...	...	...	2	...	...	...	1	2	1	1	8
Pneumonia ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Suffocation, overlaying	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	6
Other Causes	3	...	...	...	3	...	...	...	...	...	...	...	1	1	...	1	...
	15	3	2	1	21	7	7	5	4	6	3	2	4	5	2	4	70

Births in the Year : Legitimate, 349 ; Illegitimate, 17.
Deaths from all Causes at all Ages, 191.

Deaths in the year of—Legitimate Infants, 68 ; Illegitimate Infants, 2.
Population (estimated in middle of 1908), 9725.

Form prescribed by the Secretary of State for the
CERTIFYING SURGEON'S ANNUAL REPORT
FOR THE YEAR ENDED 31ST DECEMBER, 1908.

Table I.—Persons examined for Certificates of Fitness for Employment in Factories or Workshops.

Age-Class in which employment was sought	EXAMINED			CERTIFIED			REJECTED		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Children or Young Persons presented as being—									
Under 14 years of age intended to be employed half time ... ..	...	...	...	...	...	...	...	...	...
Between 13 and 14 years of age intended to be employed full time	2	0	2	2	...	2	...	None	...
Between 14 and 16 years of age	16	28	44	16	28	44	...	None	...
Total	18	28	46	18	28	46	...	None	...

TYPHOID FEVER.

Date	Residence	Age	Sex	Out-offices	Remarks
Feb. 20	3 Fatherley Ter.	21	M	Ashpit and privy	Case here a year or two ago
April 14	8 Quarry Row	25	M	Ashpit and privy	
Aug. 22	5 Bruce's Yard	23	M	Ashpit and privy	Removed to Hospital
„ 24	Sunderland Street				Eating Mussels
„ 24	4 Swallowwell Ter.	26	M	Ashpit and privy	Eating Mussels
„ 26	33 Outram Street	28	M	Ashpit and privy	Removed to Hospital
„ 31	19 D'Arcy Street	30	M	Ashpit and privy	Eating Mussels
Sept. 5	33 Bowlby Street	35	M	Ashpit and privy	Brother had same disease a few years ago and in same house
„ 9	34 Prospect Row	30	M	Ashpit and privy	Ventilator offensive
„ 10	16 Mildred Street	28	F	Ashpit and privy	Milk from Scott
„ 19	5 New Houses	26	M	Ashpit and privy	4 or 5 cases here a year ago
„ 29	Hopper Street				Offensive rain tank in yard
„ 29	115 Newbottle St.	29	M	Ashpit and privy	Milk from Hall,
Oct. 12	31 George Street	26	M	Ashpit and privy	White House Farm
„ 12	5 Hopper Square	46	M	Ashpit and privy	Milk from Metcalfe's,
„ 12	14 Hopper Street	14	M	Ash-closet	drinking Metcalfe's water
„ 23	11 Lambton Street	25	F	Ashpit and privy	Mason working at some old ashpits and privies
„ 24	31 George Street	27	F	Ashpit and privy	Milk from Bertram
„ 24	25 Union Street	50	M	Ashpit and privy	Water from Metcalfe's
„ 26	34 George Street	10	M	Ashpit and privy	Milk from Bruce
„ 30	20 Hopper Street	30	F	Ashpit and privy	Husband and wife in one room
„ 30	5 Hopper Street	27	M	Ashpit and privy	Secondary
„ 30	Newbottle Street	13	F	Ashpit and privy	Eating Mussels at Feast
Nov. 2	20 Hopper Street	5	F	Ash-closet	Milk from Scott
„ 2	64 Bowlby Street	27	M	Ashpit and privy	Sleeping in kitchen,
„ 7	28 D'Arcy Street	28	M	Ashpit and privy	Removed to Hospital
„ 7	7 New Houses	39	M	Ashpit and privy	Milk from Scott
„ 10	Union Street				Using Condensed Milk
„ 12	1 Richardson's Yd.	25	M	Ashpit and privy	Metcalfe. Fish Suppers at
„ 12	Market Place				Smith's, Newbottle Street
„ 12	1 Richardson's Yd.	25	M	Ashpit and privy	Using Condensed Milk
„ 12	Market Place				Secondary
„ 12	1 Richardson's Yd.	25	M	Ashpit and privy	Milk from Metcalf, Mussels at Houghton. Feast,
„ 12	Market Place				Removed to Hospital
„ 12	1 Richardson's Yd.	25	M	Ashpit and privy	Eating Mussels at Houghton Feast,
„ 12	Market Place				Milk from Bruce
„ 12	1 Richardson's Yd.	25	M	Ashpit and privy	Removed to Hospital
„ 12	Market Place				Milk from Bertram
„ 12	1 Richardson's Yd.	25	M	Ashpit and privy	A child died here from Pneumonia a few days ago
„ 12	Market Place				promised to let child go to hospital, when van went, would not let it go.
„ 12	1 Richardson's Yd.	25	M	Ashpit and privy	Milk from Scott
„ 12	Market Place				Secondary,
„ 12	1 Richardson's Yd.	25	M	Ashpit and privy	Removed to Hospital
„ 12	Market Place				

TYPHOID FEVER—continued.

Date	Residence	Age	Sex	Out-offices	Remarks
Nov. 12	Nag's Head, New-bottle Street	9	F	Ashpit and privy	Isolated at home
,, 12	Nag's Head, New-bottle Street	35	F	Ashpit and privy	A child just recovering from Pneumonia with Diarrhoea when case occurred
,, 14	16½ Hopper Street	3	M	Ashpit and privy	Milk from MacFarlane of Union Street
,, 14	18 Hopper Street	38	M	Ashpit and privy	Milk from McWain of Houghton
,, 14	19 Prospect Row	13	F	Ashpit and privy	Milk from Bruce
,, 11	Workhouse	29	M		Tramp taken into Workhouse ill
,, 21	19 Prospect Row	9	M	Ashpit and privy	Secondary
,, 23	19 Prospect Row	35	F	Ashpit and privy	Secondary
,, 23	19 Prospect Row	39	M	Ashpit and privy	Secondary

ADMINISTRATIVE COUNTY OF DURHAM.

CHIEF VITAL STATISTICS for 1908, and their comparison with 1907
and the average of ten years, 1898—1907.

Estimated population (1908)	...	...	843,770.
„ „ (1907)	...	...	832,900.

	Annual rate per 1000 population.		Mean rates for 10 years 1898- 1907.
	1908	1907	
Birth-rate	37·0	34·8	35·3
Death-rate... ..	17·5	17·0	18·0
Zymotic Death-rate	2·70	1·98	2·23
Infant mortality-rate (per 1000 births)...	151	136	162
Small-pox	Nil	Nil	0·008
Scarlet fever	0·07	0·06	0·16
Diphtheria and Membranous Croup ...	0·18	0·20	0·19
Fever (enteric and continued)	0·18	0·10	0·19
Measles	0·27	0·69	0·41
Whooping Cough	0·53	0·32	0·34
Diarrhoea	1·44	0·59	0·90
Phthisis	0·95	0·97	1·11
Other tubercular diseases... ..	0·70	0·80	0·86
Acute Respiratory diseases	2·81	3·09	3·06

12th January, 1909.

T. EUSTACE HILL,
County Medical Officer of Health.